PARASITOLOGY LABORATORY
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VOLUME 6. Part 1
pp. 1—32

28th September, 1951

THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

28 SEP 1951

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the International Commission on Zoological Nomenclature

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LONDON:

Printed by Order of the International Commission on Zoological Nomenclature
and
Sold on behalf of the International Commission by the International Trust for Zoological Nomenclature
at the Publications Office of the Trust
41, Queen's Gate, London, S.W.7
1951

Price Ten shillings

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 6, Part 1 (pp. 1–32) 28th September, 1951

NOTICES PRESCRIBED BY THE INTERNATIONAL CONGRESS OF ZOOLOGY

The following notices are given in pursuance of decisions taken, on the recommendation of the International Commission on Zoological Nomenclature (see 1950, *Bull. zool. Nomencl.* **4**: 51–56, 57–59), by the Thirteenth International Congress of Zoology, Paris, July 1948 (see 1950, *Bull. zool. Nomencl.* **5**: 5–13, 131).

(a) Date of commencement by the International Commission on Zoological Nomenclature of voting on applications published in the " Bulletin of Zoological Nomenclature "

NOTICE is hereby given that normally the International Commission will start to vote upon applications published in the *Bulletin of Zoological Nomenclature* on the expiry of a period of six calendar months from the date of publication in the *Bulletin* of the applications in question. Any specialist who may desire to comment upon any of the applications published in the present Part (vol. 6, Part 1) of the *Bulletin* is accordingly invited to do so in writing to the Secretary to the Commission, as quickly as possible and in any case, in sufficient time to enable the communication in question to reach the Secretariat of the Commission before the expiry of the six-month period referred to above.

Notices prescribed by the International Congress of Zoology (*continued*)

(b) Notice of the possible use by the International Commission on Zoological Nomenclature of its plenary powers in certain cases

1. NOTICE is hereby given that the possible use by the International Commission on Zoological Nomenclature of its plenary powers, is involved in applications published in the present Part of the *Bulletin of Zoological Nomenclature* in relation to the following names :—

(1) Proposed validation, as from 1809, of the undermentioned trivial names published by Martin in that year :—

(*a*) Trivial names of species of the Class Anthozoa : *duplicatus* and *floriformis* (each published in combination with " *Erismatolithus Madreporites* ") ;

(*b*) Trivial names of species of the Class Brachiopoda : *resupinatus* ; *semireticulatus* ; *productus* ; *crumena* ; *pugnus* ; *trigonalis* ; *subconicus* ; *striatus* (each published in combination with " *Conchyliolithus Anomites* ") (Z.N.(S.)461).

(2) *Martinia* McCoy, 1844, (Class Brachiopoda) proposed designation of type species for (Z.N.(S.)535).

2. Comments received in sufficient time will be published in the *Bulletin* ; other comments, provided that they are received within the prescribed period of six calendar months from the date of publication of the present Part will be laid before the International Commission on Zoological Nomenclature at the time of commencement of voting on the application concerned.

3. In accordance with the arrangement agreed upon at the Session held by the International Commission on Zoological Nomenclature in Paris in 1948 (see 1950, *Bull. zool. Nomencl.* **4** : 56) corresponding Notices have been sent to the journals " Nature " and " Science."

FRANCIS HEMMING,

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the
International Commission on
Zoological Nomenclature,
28, Park Village East, Regent's Park,
LONDON, N.W.1, England.

28*th September*, 1951.

ON THE QUESTION OF THE CORRECT SCIENTIFIC NAME FOR THE ECHINODERM FOSSIL FROM THE LIMBURG CRETACEOUS (MAESTRICHTIAN) COMMONLY KNOWN AS THE "SPATANGUE DE MAESTRICHT" (CLASS ECHINOIDEA, ORDER SPATANGOIDEA)

By H. ENGEL

(*Zoologisch Museum, Amsterdam, The Netherlands*)

(Commission's reference Z.N.(S.)219)

In a paper entitled "Over de variatie van *Hemipneustes striatoradiatus* (Leske)" published in 1945 (*Verhandl. Geol-Mijnbouwk. Genootsch. Nederland en Kolon.* (Geol. Ser.)**14**: 173-182) I discussed the status of the name of the common and well known fossil sea-urchin from the Limburg Cretaceous (Maestrichtian) so aptly designated by the French as "Spatangue de Maestricht". My conclusion was that the modern use by palaeontologists for this species of the generic name *Spatagoides* was incorrect under the *Règles*, as also was the use of the specific trivial name *radiatus*. The first name published for this species was *Spatangus striatoradiatus* Leske, 1778; the oldest generic name available for this species according to current taxonomic ideas was *Hemipneustes* Agassiz, 1836; the correct name for this species was therefore *Hemipneustes striatoradiatus* (Leske, 1778).

The generic name *Hemipneustes* Agassiz, 1836, was in general use for this species until Lambert & Thiéry (*Essai de Nomenclature raisonnée des Echinides*, (fasc. 6/7) : 411) substituted for it the name *Spatagoides* Klein, 1778. Lambert remarks in his "Révision des Echinides fossiles de la Catalogne" (1927, *Mem. Mus. Cienc. nat. Barcelona* (Ser. Geol.) **1** : 42) that the name *Spatagoides* was adopted by Bayle as far back as 1878 (*Explic. Carte géol. France* **4** (Atlas)), while he himself had given in 1917 the arguments in favour of the use of this name in place of *Hemipneustes* in his "Note sur quelques Holasteridae" (*Bull. Soc. Sci. hist. nat. Yonne* **70** : 196). The last mentioned publications are not available to me but the grounds on which Lambert based his conclusions are quite clear from the statements made in the paper which he published in 1924 (*loc. cit.*) jointly with Thiéry. The argument was : (1) that Klein in his *Naturalis Dispositio Echinodermatum* published in 1734 used (: 35) the generic name *Spatagoides* for a species which he called *Spatagoides andersonii* and which he figured on his plate XXV from a specimen of the "Spatangue de Maestricht" from Bemelen near Maestricht collected in 1715; (2) that Leske in 1778 conferred availability as from that date on Klein's names by republishing that author's *Naturalis Dispositio*. It is quite clear that in this new edition Leske did not reinforce Klein's names "by adoption and acceptance" (*Opinion* 5) and therefore that the republication of these names in this way did not confer any availability on them under the *Règles*; I do not consider it necessary to argue this point in detail, for it was fully considered by the International Commission on Zoological Nomenclature in 1948 in connection with

the generic name *Arachnoides*, another of Klein's 1734 names which it was desired to make available as from Leske, 1778. The Commission then took the view that, in order to secure this end, it was necessary for it to use its plenary powers expressly to validate the name *Arachnoides*, its publication in 1778 in Leske's reprint of Klein's work having conferred no availability upon it (1950, *Bull. zool. Nomencl.* **4** : 530-536).

The position is therefore that, under the *Règles* the name *Spatagoides*, originally of Klein, 1734, acquired no availability in virtue of the republication by Leske in 1778 of Klein's *Naturalis Dispositio*. Among the synonyms quoted by Lambert & Thiéry (1924 : 411) is the alleged generic name *Spatangoida* attributed by those authors to Gmelin, 1789 (*in* Linnaeus, *Syst. Nat.* (ed. 13) **1** : 3197) ; but this term was used by Gmelin only to indicate that it had been employed by Klein for the group of species dealt with on page 3197. This term was not " reinforced " by Gmelin " by adoption or acceptance " (*Opinion* 5) and accordingly acquired no availability by reason of having been republished in this way. It therefore has no existence as a generic name. The next name to be considered is *Hemipneustes* Agassiz, 1836 (*Mém. Soc. Sci. nat. Neuchatel* **1** : 183) ; this is a validly published name, the nominal genus so named having, as its type species by monotypy, the nominal species *Hemipneustes radiatus* ; this name was not published by Agassiz as a new name but was attributed by him to Lamarck, by whom the trivial name *radiatus* had been employed in the binominal combination *Spatangus radiatus* (1816, *Anim. sans Vertèbr.* **3** : 33). When however we turn to Lamarck, we find that he in turn was not the author of the trivial name *radiatus*, which he attributed to Gmelin, by whom it was published in the binominal combination *Echinus radiatus* (Gmelin, 1790, *in* Linnaeus, *Syst. Nat.* (ed. 13) **1** : 3174). Finally, we find that Gmelin himself did not regard the trivial name *radiatus* as a new name but merely as an emendation of the name *striatoradiatus* as published by Leske in 1778 in the binominal combination *Spatangus striatoradiatus* (Leske, 1778, *Addit. Klein. nat. Disp. Ech.* : 234)(also on page 170 in the edition which does not include the reprint of Klein). The species so named by Leske, and therefore also the species referred to by Agassiz in 1836 under the name *Hemipneustes radiatus*, is the " Spatangue de Maestricht ". As the foregoing was the sole species referred by Agassiz to the genus *Hemipneustes*, it is the type species of that genus by monotypy. The generic name *Hemipneustes* Agassiz, 1836, is the oldest available generic name for the " Spatangue de Maestricht ", for that species is not congeneric with the species which is the type species of the genus *Echinus* Linnaeus, 1758, to which it was referred by Gmelin in 1790, while the International Commission has, under its plenary powers, suppressed all uses of the generic name *Spatangus* prior to Gray, 1825, in order to validate the name *Spatangus* Gray, 1825, with type species *Spatagus purpureus* Müller (O. F.), 1776, a species not congeneric with the " Spatangue de Maestricht " (1950, *Bull. zool. Nomencl.* **4** : 522–530). We arrive therefore at the conclusion that, on the basis of current taxonomic ideas, the correct generic name for the species under consideration is *Hemipneustes* Agassiz, 1836.

As regards the trivial name applicable to this species, we have already seen that in 1778 Leske gave it the name *striatoradiatus* (in the binominal combination *Spatangus striatoradiatus*) and that in 1790 Gmelin, who referred

this species to the genus *Echinus* Linnaeus, emended the trivial name given to this species by Leske by shortening it to the form *radiatus*. Goldfuss (G. A.) (1829, *Petref. German.* **1** (2) : 150) cites a number of authors under the name *Spatangus radiatus*, but of the references so given one only is prior to the publication in 1778 of the name *Spatangus striatoradiatus*. This reference was cited by Goldfuss as " Knorr, Petref. tab. E IV n. 41 "). This is clearly a reference to the work entitled " Die Naturgeschichte der Versteinerungen zur Erläuterung der Knorrischen Sammlung von Merkwürdigkeiten der Natur " by Walch, J. E. I. In volume 2 of the above work there is a description on page 182 of the specimen figured on Plate E IV figs. 1 & 2, but neither on the plate where the number 41 (cited by Goldfuss) refers to four figures (figs. 1-4, of which only figs. 1 & 2 represent the " Spantangue de Maestricht ") nor in the text (on page 182) nor on page 28 of Part IV (where a *Systema* is given) is there any trace of the name *Echinocerus scutatus*, alleged by Goldfuss to have been used by " Knorr," i.e., by Walch, for the species under consideration. On the contrary, the specimen figured as figs. 1 & 2 on pl. E IV, which was collected in Maestricht, was cited by Walch under the name *Spatangus*. The only name cited by Walch (but not accepted by him) is from Klein : " *Spatagoides quaternis radiis, andersonii.*" We see therefore that Leske was the first author to apply a trivial name to the " Spatangue de Maestricht."

In the light of the data given above, we find that the oldest available name for the foregoing species is *Spatangus striatoradiatus* Leske, 1778, that the oldest available generic name for this species is, according to current taxonomic ideas, the name *Hemipneustes* Agassiz, 1836, and therefore that, on the basis of those taxonomic ideas, the correct name, under the *Règles*, for this species is *Hemipneustes striatoradiatus* (Leske, 1778). In view of the misunderstanding and confusion in this matter created by the action by Lambert & Thiéry, it is desirable that these names should now be stabilised by being placed on the *Official Lists* established respectively for generic names and for specific trivial names. The request which I accordingly submit is that the International Commission on Zoological Nomenclature should :—

(1) place on the *Official List of Generic Names in Zoology* the generic name *Hemipneustes* Agassiz, 1836 (gender of generic name : feminine) (type species, by monotypy : *Echinus radiatus* Gmelin, 1790) ;

(2) place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the under-mentioned reputed but non-existent generic names :—

(*a*) *Spatagoides* Klein, 1778, *Nat. Disp. Ech.* (Leske's ed.) ;

(*b*) *Spatagoides* Leske, 1778, *Add. Klein, Nat. Disp. Ech.* : 9, 156, 175, 176 ;

(*c*) *Spatangoida* Gmelin, 1789, *in* Linnaeus, *Syst. Nat.* (ed. 13)**1** : 3197 ;

(3) place on the *Official List of Specific Trivial Names in Zoology* the trivial name *striatoradiatus* Leske, 1778 (as published in the binominal combination *Spatangus striatoradiatus*) ;

(4) place on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* the under-mentioned invalid or reputed but non-existent specific trivial names :—

(*a*) *radiatus* Gmelin, 1790 (as published in the binominal combination *Echinus radiatus*) (an invalid name, being an invalid emendation of the trivial name *striatoradiatus* Leske, 1778 (as published in the binominal combination *Spatangus striatoradiatus*)) ;

(*b*) *scutatus* Knorr, 1768 (in the binominal combination *Echinocerus scutatus*) (a reputed but non-existent name).

Postscript (dated 9th September, 1950) : The present application was originally submitted in April 1946 at a time when the Commission had not given any ruling on the availability of generic names originally published by Klein in 1734 on their being republished in 1778 in Leske's post-1757 edition of Klein's *Naturalis Disppsitio Echinodermatum*. In the application, as then submitted, I accordingly set out in detail the grounds on which I asked the Commission to give a ruling that in the foregoing re-issue of Klein's work Leske had not complied with the requirements specified in *Opinion* 5 and therefore that Klein's names acquired no availability in virtue of being so republished by Leske. I have since revised this application, in view of the fact that this question was the subject of a ruling (in the case of the alleged name *Arachnoides* Klein or Leske, 1778) by the Commission at its Session held in Paris in 1948[1]. At the same time I have redrafted the form of the application submitted to the Commission, in order to take account of the decisions taken by the Thirteenth International Congress of Zoology to establish both an *Official List of Specific Trivial Names in Zoology* and also an *Official Index of Rejected and Invalid Generic Names* and a corresponding *Official Index* for similar specific trivial names.

[1] See 1950, *Bull. zool. Nomencl.* **4**: 533

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE TRIVIAL NAMES OF TWO NOMINAL SPECIES OF THE CLASS ANTHOZOA AND OF EIGHT NOMINAL SPECIES OF THE CLASS BRACHIOPODA, PUBLISHED BY WILLIAM MARTIN IN 1809 IN THE WORK ENTITLED "PETRIFICATA DERBIENSIA" AND MATTERS INCIDENTAL THERETO

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(Commission's reference Z.N.(S.)461)

At its Session held in Paris in July 1948 the International Commission on Zoological Nomenclature ruled that the works by W. Martin published respectively in 1793,* under the title *Figures and Descriptions of Petrifactions collected in Derbyshire* and in 1809 under the title *Petrificata Derbiensia* did not comply with the binominal requirements of the *Règles* and therefore that no new "names" published therein possessed any availablity under the *Règles* in virtue of being published therein. It is assumed that in arriving at this decision consideration was taken of the publication by W. Martin of "Outlines of an Attempt to establish a Knowledge of Extraneous Fossils and Scientific Principles", [Macclesfield] 1809, pt. 1, vi, chapter headed "Principles of Nomenclature", pp. 202-203, where the following statement occurs: "Names of the Species. The *name* of a *species* properly consists of the *generic* (i.e. name of the *genus*) and *trivial* name. The *trivial* name is a word added to the name of the *genus*, in order to form a distinctive appellation for a species".†

In its ruling, the International Commission placed on record its intention

> "to give sympathetic consideration to any application which might be submitted by interested specialists for the validation as from Martin,

* In the *Official Record* of the decision by the International Commission the date given for this work in 1793, the date which it bears but according to a statement by Martin himself (1809, *Petrificata derbiensia*, Preface : v) this work was published in Parts, the first Part not having been issued until 1794. It has not, however, proved possible to find any confirmation of this statement.

† "In writing or speaking of *permanent* species of reliquia, of which the originals are *unknown*, it will generally be found convenient to use the *family* name, with the *generic* and *trivial* ones—as, CONCHYL. Anomites *striatus*—CONCHYL. Anomites *productus*, &c., &c. In this mode, a more determinate idea is given of the *reliquium*, than if the *trivial* name were used with the *generic* one alone. Nor is the insertion of the family name between the generic and trivial appellations, as just given, contrary to the practice of our first naturalists, who, in treating of detached species belonging to *genera* in which Linneus found it necessary to establish *families* or *subdivisions*, frequently use the *family* name in conjunction with the *generic* and *trivial* denominations—as, 'PHALAENA Geometra *rufata*—PAPILIO Eques *Hector*—PHALAENA Tinea *pratella*,'."

1809, of any trivial name first published by that author in his *Petrificata Derbiensia* where that name was in general use for a common species and it could be shown that under (1) above it would be necessary to change the name of that species and that such change would lead to confusion in nomenclature ". (Commission Minutes, Paris Session, 14th Meeting, Conclusion 15 (2) 1950, *Bull. zool. Nomencl.*, **4** (16/18) : 450–452.)

It is in accordance with the invitation so extended to specialists that the present application is submitted for consideration. It relates to the trivial names of ten species published in Martin's *Petrificata derbiensia* of 1809. Several of the nominal species so named by Martin are the type species of important and well-known genera. The fossil genera in question contain species of common occurrence which are of importance in Carboniferous and Permian stratigraphical palaeontology, not only of Europe and Asia but also of America. Failure to validate these species would cause considerable confusion in stratigraphical and palaeontological literature. The request now submitted to the International Commission is that it should (1) validate each of the trivial names concerned under its plenary powers, and, having done so, should (2) place the trivial names in question on the *Official List of Specific Trivial Names in Zoology.*

In some of the cases now submitted the identity of the nominal species bearing the trivial names which form the subject of the present application has been determined by later authors, acting under Article 31. We recommend that in placing the trivial names in question on the *Official List*, the Commission should include a reference to such determinations in the same way as we understand was done in similar cases when names were placed by the Commission on this *Official List* during its Paris Session.

The names which we ask the Commission to validate under its plenary powers are specified in the following paragraphs where we give also the grounds on which we base the applications so submitted.

(1) & (2) The trival names " duplicatus " and " floriformis " Martin, 1809 (as published respectively in the combinations " Erismatolithus Madreporites (duplicatus) " and " Erismatolithus Madreporites (floriformis) "

The species name *Erismatolithus Madreporites* (*duplicatus*) Martin (W.), 1809 (*Petrif. derb.* : sign. N[4], pl. 30, figs. 1, 2) is the name of the coral nominal species which is the type species of the genus *Lonsdaleia* McCoy (F.), 1849 (*Ann. Mag. nat. Hist.* (2) **3** : 12). The species was designated as type species of the above genus by McCoy in 1849 (*loc. cit.*).

Erismatolithus Madreporites (*floriformis*) Martin, 1809 (*Petrif. derb.* : sign. U[1], pl. 43, figs. 3, 4 and pl. 44, fig. 5) has for more than seventy years been referred to the genus *Lonsdaleia.*

Lonsdaleia is a commonly occurring genus of Anthozoa in Carboniferous rocks, and the species *Lonsdaleia floriformis* (Martin) has, for over forty years, been used as a zonal index in Lower Carboniferous stratigraphy.

The first reviser of Martin's species was J. Fleming who, in 1828 (*The History of British Animals* : 509), assigned *E. M. duplicatus* to the recent genus *Caryophyllia* Lamarck, 1801 (*Syst. Anim. sans Vertèbr.* : 370) and placed *E. M. floriformis* in his new genus *Lithostrotion* (: 508). Fleming gave no new illustration of these species, but W. Lonsdale in 1845, " Description of some Charateristic Palaeozoic Corals of Russia " (*in* Murchison & others, *The Geology of Russia in Europe and the Ural Mountains* **1** : 603) selected Martin's species *E. M. floriformis* as the type species of Fleming's genus *Lithostrotion*. To stabilize modern concepts of both the genera *Lonsdaleia* McCoy and *Lithostrotion* Fleming, however, the International Commission in *Opinion* 117 published in 1931 (*Smithson. misc. Coll.* **73** (No. 7), : 18-19) suspended the Rules and standardised *Lithostrotion* Fleming, 1828, with *Lithostrotion striatum* Fleming, 1828 (*loc. cit.* : 508) as the type species.

The genus *Lonsdaleia* has been made the subject of a special study by Stanley Smith in a paper entitled " The Genus *Lonsdaleia* and *Dibunophyllum rugosum* ", published in 1916 (*Quart. J. geol. Soc. Lond.* **71** : 218-272, pls. 17-21). The nomenclatorial history of the two *Lonsdaleia* species in question thus received particular attention, the results of which it would be confusing to workers to disturb. All Martin's syntypes of the two species now being considered are lost, but Stanley Smith chose two neotypes from the Sedgwick Museum collections, which he illustrated in his 1916 paper ; (1) for *Erismatilithus Madreporites duplicatus* as pl. xvii, fig. 1 and for *E. M. floriformis* as pl. xix, figs. 1-3. The latter specimen was the type-specimen of *Stombodes conaxis* McCoy (*Ann. Mag. nat. Hist.* (2) **3** : 10, pl. 49).

There appears, therefore, to be a strong case for the validation of the trivial names of Martin's nominal species *Erismatolithus Madreporites duplicatus* and *Erismatolithus Madreporites floriformis* (commonly known as *Lonsdaleia duplicata* and *L. floriformis* respectively), since both the species in question are well-known and commonly occurring Lower Carboniferous species, and any disturbance of these names would cause confusion.

(3) The trivial name " resupinatus " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (resupinatus)")

The species name *Conchyliolithus Anomites* (*resupinatus*) Martin, 1809 (*Petrif. derb.* : sign. Z[4], pl. 49, figs. 13, 14) is the name of the nominal species of brachiopod which is the type species of the genus *Schizophoria* King, 1850 (*Mon. Permian Foss.* (Palaeont. Soc.) : 105) by original designation.

Martin's species was redescribed by Sowerby (J.) in 1822 (*Min. Conch.* **4** : 25, pl. 325) as *Terebratula resupinata* from the Mountain Limestone of Derbyshire. The same species-name *Terebratula resupinata* was, however, previously used by Sowerby (J.) in 1816 (*Min. Conch.* **2** : 116, pl. 150, figs. 3, 4) for a Middle Lias brachiopod from Ilminster, Somerset.

The species name *Terebratula resupinata* J. Sowerby, 1822 (= *Conch. Anomites resupinatus* Martin) is, therefore, preoccupied by *Terebratula resupinata* J. Sowerby 1816.

Confusion would be caused if the name given by Martin to this species were invalidated, since the next use of the trivial name *resupinata* by Sowerby in

1822 in the combination *Terebratula resupinata* for Martin's species, is itself invalid by the previous use of the trivial name *resupinata* for another species in the same combination, *Terebratula resupinata* by Sowerby in 1816.

Furthermore, T. N. George and D. A. Ponsford in 1938 (*Trans. Leeds geol. Assoc.* **5** (4) : 288) selected a shell figured by Davidson in 1861 (*Mon. Brit. Foss. Brach.* **2** (5)(4) : 130, pl. 29, figs. 1, 1a, 1b), from Bolland preserved in the British Museum (Natural History), as a neotype of Martin's species, since Martin's original shell has not been found. This neotype was refigured and described by G. Bond in 1941 (*Proc. geol. Assoc.* **52** (4) : 289, pl. 21, figs. A-C.)

It is therefore recommended that the trivial name *resupinatus* Martin, 1809, in its published form *Anomites resupinatus*, commonly known as *Schizophoria resupinata* should be validated under the plenary powers.

(4) & (5) The trivial names "productus" Martin, 1793 and 1809 (as published in the combinations "Conchyliolithus Anomia (productus)" and "Conchyliolithus Anomites (productus)"), and "semireticulatus" Martin, 1809 as published in the combination "Conchyliolithus Anomites (semireticulatus)")

The species name *Conchyliolithus Anomites* (*productus*) Martin, 1809 (*Petrif. derb.* : sign. K[2], pl. 22, figs. 1-3) or *Conchyliolithus Anomia* (*productus*) Martin, 1793 (*Figs. Descr. Petrifactions Derb.* : sign. L[3], pl. 22, figs. 1-3) is the name of the nominal species which is the type species of the genus *Productus* Sowerby (J.), 1814 (*Min. Conch.* **1** : 153) by subsequent designation of Thomas (I.) in 1914 (*Mem. geol. Surv. Gt. Brit.* (Palaeont.) **1**(4) : 258).

The species name *Conchyliolithus Anomites semireticulatus* Martin, 1809 (*ibid.* : sign. O[3], pl. 32, figs. 1, 2, 3 and pl. 33, fig. 4) is the name of the nominal species which is the type-species of the genus *Dictyoclostus* Muir-Wood, 1930 (*Ann. Mag. nat. Hist.* (10) **5** : 103) by original designation.

In the discussion on his genus *Productus*, Sowerby (J.) (1814, *loc. cit.*) stated—" His (Martin's) *Conch. Anomites productus* is a good type of the Genus, therefore, as the name *Anomites* must be laid aside, I have adopted his specific name as the Generic one . . . " Sowerby renamed Martin's species *C. Anomites productus*, calling it *Productus martini*.

Confusion arose, however, owing to Sowerby (J.) having figured three distinct species in 1821 (*Min. Conch.* **4** : pl. 317, figs. 2–4) as *Productus martini*, one of which was said to be intermediate between *P. martini* and *Productus antiquatus*, the latter nominal species being described by Sowerby as possibly Martin's *Anomites semireticulatus* (erroneously quoted as *Annomites* [*sic*] *semistriatus* on page 15).

Several later authors regarded *P. martini* and *P. semireticulatus* as synonymous. Dall in 1877 (*Bull. U.S. nat. Mus.* **8** : 58) gave the type species of *Productus* Sowerby as *P. martini* Sow.=*Anomites semireticulatus* Martin+*A. productus* Mart. S. A. Miller in 1889 (*N. Amer. Geol. Palaeont.* : 363) quoted *P. semireticulatus* and *P. longispinus* as types. Oehlert in 1887 (*in* Fischer (P.),

Manuel de Conchyliol. (Appendix) : 1277) gave *P. martini* Sowerby=*Anomites productus* Martin as the type, while Hall and Clarke in 1894 (*Eleventh Ann. Rep. State Geol. N.Y.* : 297) quoted *P. semireticulatus* as the type species. Schuchert in 1897 (*Bull. U.S. Geol. Surv.* : **87** : 319) gave the type species as *Anomites productus* Martin=*Productus martini* Sowerby=*Productus semireticulatus* (Martin).

Thomas (I). (1914, *loc. cit.*) was the first to make a clear selection of a type species for *Productus* Sowerby, so selecting *Productus productus* (W. Martin). This was adopted by Chao in 1927 (*Pal. sinica* (B) **5**(2) : 26), by Muir-Wood in 1928 (*Mem. geol. Survey Gt. Brit.* (Palaeont.) **3**(1) **:** 235) and by Schuchert and Levene in 1929 (*Foss. Cat.* **1** (42 Brachiopoda, Generum et Genotyporum Index et Bibliographia), : 100).

In 1930 the two species *P. productus* (Martin) and *P. semireticulatus* (Martin) were finally disentangled by Muir-Wood (*Ann. Mag. nat. Hist.* (10)**5** : 103), who then selected *P. semireticulatus* (Martin) as the type species of the genus *Dictyoclostus* Muir-Wood. This revision is now generally adopted by authors.

The invalidation, for these two species, of the trivial names given to them by Martin would cause considerable confusion in nomenclature and the disentangling of Sowerby's nominal species, in order to determine the trivial names which would have to replace them, would necessitate a considerable amount of research. There appears, therefore to be a good case for the validation of the the trivial name *productus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*productus*)) for the species commonly known as *Productus productus* (Martin), and of the trivial name *semireticulatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*semireticulatus*)) for the species commonly known as *Dictyoclostus semireticulatus* (Martin).

(6) The trivial name " crumena " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (crumena) ")

The nominal species *Conchyliolithus Anomites* (*crumena*) Martin, 1809 (*Petrif. derb.* : sign. R[1], pl. 36, fig. 4) was assigned to the genus *Camarophoria* (emend. of *Camerophoria*) King, 1850 (*Mon. Perm. Foss.* (Palaeont. Soc.) : 113) by King, 1850 (*ibid.* : 119, footnote). It was subsequently redescribed and figured as *Camarophoria crumena* from the Lower Carboniferous by Davidson in 1861 (*Mon. Brit. Foss. Brach.* **2**(5)(3) : 113, pl. 25, figs. 3–9), Martin's figure being reproduced for comparison.

Prior to this, however, in 1815, Sowerby (J.) (*Min. Conch.* **1** : 190, pl. 83, figs. 2, 2*, 3) used Martin's trivial name *crumena* in describing the species as *Terebratula crumena*.

Sowerby's *T. crumena* includes three unrelated species, two Rhynchonellids from the Jurassic which are both figured in pl. 83, and Martin's Lower Carboniferous species mentioned in the description but not figured by Sowerby. Martin's type-specimen is not preserved in the Sowerby collection and is not refigured in pl. 83, fig. 3.

In view of this confusion and of Sowerby's misidentification of Martin's species, there appears to be a good case for the validation of the trivial name *crumena*, 1809 (as published in the combination *Conchyliolithus Anomites* (*crumena*)) for the species commonly known as *Stenoscisma* [olim *Camarophoria*] *crumena* (Martin), since from 1861 onwards when the species was redescribed by Davidson, this trivial name is well-established in Carboniferous literature.

(7) The trivial name " pugnus " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (pugnus) ")

In 1793 (*Figs. Descr. Petrifactions Derbyshire* : sign. L[4], pl. 22, figs. 4, 5) Martin published the name *Conchyliolithus Anomia* (*quinquelobatus*) ; in 1809 (*Petrif. derb.* sign. K[4], pl. 22, figs. 4, 5) Martin republished the above figures, to which on this occasion he assigned the name *Conchyliolithus Anomites* (*pugnus*). No reason was given by Martin for this change ; the specific name *Anomites quinquelobatus* is not preoccupied. Thus, if the names published in Martin's two books were available for the purposes of zoological nomenclature, the entirely unknown name *quinquelobatus* Martin 1793, would replace *pugnus* Martin, 1809, a name which is universally used for this common Lower Carboniferous species of brachiopod.

Sowerby (J. de C.) in 1825 (*Min. Conch.* **5** : 155, pl. 497, figs. 1–6) was the next author to describe Martin's species, which he assigned to the genus *Terebratula*. In 1840 (in the alphabetical index to volume 7 of the *Min. Conch.*) Sowerby transferred this species to the genus *Atrypa* Dalman, 1828 (*K. Vetensk-acad. Handl.*, Stockholm **1827** : 93, 102). Five of the specimens assigned by Sowerby to *Terebratula pugnus* are from Ireland and one from Derbyshire. They belong to more than one species, but none is identical with the species to which Martin applied the trivial names *quinquelobatus* (in 1793) and *pugnus* (in 1809), the holotype of which is still in existence.

Thus, if the trivial name *pugnus* Martin, 1809, were not preserved by the International Commission, the name *pugnus*, as from Sowerby (1825), would have to be applied to a species different from that for which it is now universally used, a change which would certainly lead to great confusion. There is therefore a good case for the use by the Commission of its plenary powers to validate the trivial name *pugnus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*pugnus*)) for use for the species to which it is now always applied.

(8) The trivial name " subconicus " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (subconicus) ")

The species name *Conchyliolithus Anomites* (*subconicus*) was published by Martin in 1809 (*Petrif. derb.* sign. Z[2], pl. 47, figs. 6–8). The species so named was first redescribed in 1840 (*Trans. Geol. Soc. Lond.* (2) **5** : pl. 57, fig. 10 and expl.) by Sowerby (J. de C.), who misidentified it from the British Devonian, citing it as *Spirifera subconica* var. Sowerby's figure represents an unrelated species nowadays identified as *Cyrtina heteroclita* (Defrance, 1827). This misidentification was furthered by Phillips in 1841 (*Figs. Descr. Pal. Foss.*

Cornwall. : 72, pl. 29, fig. 126), while de Koninck in 1843 (*Descr. Anim. foss. Belg.* : 255, pl. 12 bis, figs. 5, 5a, b,c) confused *subconicus* Martin with another unrelated species from the Belgian Lower Carboniferous. The species which de Koninck then erroneously called *Spirifer subconica* is identified nowadays as *Davidsonina septosa* (Phillips, 1836), var. *transversa* (J. W. Jackson).

The confusion in regard to the identity of Martin's species was finally cleared up by Davidson in 1858–59 (*Mon. Brit. foss. Brach.* **2** (5)(1) : 48, pl. 9, fig. 3) and in 1863 (*ibid.*, **2** (5)(5) : 224, pl. 52, fig. 4) when an accurate description and illustration of the species were given under the name *Spirifera subconica.*

North (F. J.) in 1921 (*Quart J. geol. Soc. Lond.* **76** : 203) assigned this species to his new genus *Tylothyris* North, 1921 (*ibid.* **76**: 195), applying to it the name *Tylothyris subconica subconica.* At the same time he selected but did not illustrate a neotype.

If the name *subconicus* Martin, 1809, were to be treated as unavailable for nomenclatorial purposes, it would not be possible to apply that trivial name, as from a later author, to the species for which it is at present habitually used, since (as shown above) the first author after Martin to make use of this name (J. de C. Sowerby) applied it, as the result of a misidentification, to a different species ; in consequence, it would be necessary to provide this species with a new name. As this is a common British Lower Carboniferous species, such a change of name would certainly cause confusion. There is therefore a good case for the use by the International Commission of its plenary powers to validate the trivial name *subconicus* Martin, 1809.

(9) The trival name " trigonalis " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (trigonalis) ")

The species name *Conchyliolithus Anomites* (*trigonalis*) was published by Martin in 1809 (*Petrif. derb.* : sign. Q[2], pl. 36, fig. 1). This trivial name was first republished in 1820 by Sowerby (J.) (*Min. Conch.* **3** : 117, pl. 265, figs. 2, 3). Martin's type-specimen is not preserved ; it was not refigured by Sowerby. Sowerby's syntypes, which are extant, are referable not to *Anomites trigonalis* Martin but to a species near *Spirifer bisulcatus* Sowerby (J. de C.), 1825 (*Min. Conch.* **5** : 152).

McCoy in 1844 (*Syn. Carb. Limest. Foss. Ireland* : 135) in his description of *Spirifera trigonalis* stated that there were two species—that of Martin and that of Sowerby—confused under this name. These two species were disentangled by Davidson in 1858 (*Mon. Brit. foss. Brach.* **2** (5)(1) : 29, pl. 5, figs. 25, 29–33 ; and 1863 (*ibid.* **2** (5)(5) : 222, pl. 50, figs. 3, 4, *nec* 5–9). Later, however, in 1880 (*ibid.* **4** (3): 276, pl. 32, fig. 13; pl. 34, figs. 2–5) Davidson again confused this species with other Carboniferous Spirifers. Schwetzov in 1925 (*Bull. Soc. Nat. Moscou* **33** : 155) included Martin's species in his *Spirifer trigonalis* Martin, var. *typica.*

We find therefore that on the occasion of the first use, subsequent to Martin (1809), of the trivial name *trigonalis* (namely that by J. de C. Sowerby in 1820) this trivial name was applied not to the species so named by Martin but to

another species, and, therefore, that, if the name *trigonalis* Martin, 1809, were not to be validated by the International Commission, it would be necessary to apply it in an entirely unaccustomed sense and at the same time to provide a new name for the species now known as *Spirifer* (or *Fusella*) *trigonalis*. This is a common Lower Carboniferous species and its trivial name *trigonalis* is well established in stratigraphical and palaeontological literature. Any disturbance of that name would certainly give rise to confusion, and there is therefore a good case for the use by the International Commission of its plenary powers to validate the trivial name *trigonalis* Martin, 1809, for use in its customary sense.

(10) The trivial name " striatus " Martin, 1809 (as published in the combination " Conchyliolithus Anomites (striatus) ")

The species name *Conchyliolithus Anomites* (*striatus*) was published by Martin in 1809 (*Petrif. derb.* : sign. L[1], pl. 23, figs. 1, 2). The same trivial name had previously been applied by Martin to the same species in the combination *Conchyliolithus Anomia* (*striatus*) in 1793 (*Figs. Descr. Petrifications Derbyshire* : sign. M[1], pl. 23, figs. 1, 2 et expl.). This is an extremely well-known species and for nearly 100 years has been treated as the type species of the genus *Spirifer* Sowerby (J.), 1816 (*Min. Conch.* **2** : 41). Under the *Règles*, this usage was incorrect and accordingly in 1924 Muir-Wood submitted an application to the International Commission asking for the use of the plenary powers to regularise universally accepted nomenclatorial practice by designating the above species as the type species of *Spirifer* Sowerby. This application was approved by the Commission, whose decision was promulgated in *Opinion* 100 published in 1928 (*Smithson. misc. Coll.* **73** (No. 5) : 9–12). The Commission was not asked on that occasion to validate the trivial name *striatus* Martin (the question of the availability of names in Martin's two books not then being raised as such), the only request put to the Commission, and the only question on which it gave a decision, being concerned with the type species of the genus *Spirifer* Sowerby. The present opportunity is accordingly taken to ask the International Commission to complete the case dealt with in *Opinion* 100 by using its plenary powers to validate the trivial name *striatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*striatus*).

Recommendations

Since we understand from the *Official Record of the Proceedings of the International Commission on Zoological Nomenclature at its Session held in Paris in July* 1948 (1950, *Bull. zool. Nomencl.* **4**) that it is the policy of the International Commission and of the International Congress of Zoology to develop the *Official List of Generic Names in Zoology* to the fullest extent possible and since a large part of the case on which the present application is based rests upon the fact that several of the specific trivial names which we ask should be validated are the names of type species of important genera, we recommend that the names of those genera should be placed on the *Official List* for such names at the same time that the trivial names now proposed to be validated are placed on the *Official List of Specific Trivial Names in Zoology*.

We accordingly ask the International Commission on Zoological Nomenclature :—

(1) under the procedure laid down under Section (2) of the Fifteenth Conclusion at the Fourteenth of its Meetings held in Paris in July 1948 (*Bull. zool. Nomencl.* **4** : 452), to use its plenary powers to validate the undermentioned trivial names published by Martin (W.) in 1809 in the work entitled *Petrificata Derbiensia* :—

(i) Class Anthozoa

(*a*) *duplicatus* Martin, 1809, *ibid.* : sign. N[4], pl. 30, figs. 1, 2 (as published in the combination *Erismatolithus Madreporites* (*duplicatus*)) ;

(*b*) *floriformis* Martin, 1809, *ibid.* : sign. V[1], pl. 43, figs. 3, 4 (as published in the combination *Erismatolithus Madreporites* (*floriformis*)) ;

(ii) Class Brachiopoda

(*c*) *resupinatus* Martin, 1809, *ibid.* : sign. Z[4], pl. 49, figs. 13, 14 (as published in the combination *Conchyliolithus Anomites* (*resupinatus*)) ;

(*d*) *semireticulatus* Martin, 1809, *ibid.* : sign. O[3], pl. 32, figs. 1–3 pl. 33, fig. 4 (as published in the combination *Conchyliolithus Anomites* (*semireticulatus*)) ;

(*e*) *productus* Martin, 1809, *ibid.* : sign. K[2], pl. 22, figs. 1–3 (as published in the combination *Conchyliolithus Anomites* (*productus*)) ;

(*f*) *crumena* Martin, 1809, *ibid.* : sign. R[1]. pl. 36, fig. 4 (as published in the combination *Conchyliolithus Anomites* (*crumena*)) ;

(*g*) *pugnus* Martin, 1809, *ibid.* : sign. K[4], pl. 22, figs. 4, 5 (as published in the combination *Conchyliolithus Anomites* (*pugnus*));

(*h*) *trigonalis* Martin, 1809, *ibid.* : sign. Q[2], pl. 36, fig. 1 (as published in the combination *Conchyliolithus Anomites* (*trigonalis*)) ;

(*i*) *subconicus* Martin, 1809, *ibid.* : sign. Z[2], pl. 47, figs. 6–8 (as published in the combination *Conchyliolithus Anomites* (*subconicus*)) ;

(*j*) *striatus* Martin, 1809, *ibid.* : sign. L[1], pl. 23, figs. 1, 2 et expl. (as published in the combination *Conchyliolithus Anomites* (*striatus*)) ;

(2) to place the ten trivial names specified in (1) above on the *Official List of Specific Trivial Names in Zoology*, subject, in the undermentioned cases, to the addition of the following notes specifying the manner in which the nominal species in question is to be interpreted :—

(*a*) *duplicatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as fig. 1 on plate 17 in the paper by Stanley Smith published in 1916 (*Quart. J. geol. Soc. Lond.* **71**) ;

(*b*) *floriformis* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as figs. 1–3 on plate 19 in the paper by Stanley Smith published in 1916 (*Quart. J. geol. Soc. Lond.* **71**) ;

(*c*) *resupinatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as figs. 1, 1a, 1b, on plate 29 in the portion of Davidson's monograph published in 1861 (*Mon. brit. foss. Brach.* **2** (5) (4) (specimen refigured by Bond in 1941, *Proc. geol. Assoc.* 52(4) : 289, pl. 21, figs. A-C) ;

(*d*) *crumena* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimens illustrated as figs. 3–8 on pl. 25 in the portion of Davidson's monograph published in 1861 (*Mon. brit. foss. Brach.* **2** (5) (3)) ;

(*e*) *subconicus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated by Davidson in 1859 as fig. 3 on plate 9 (*Mon. brit. foss. Brach.* **2**(5)(2)) ; and as fig. 4 on plate 52 (*ibid.* **2**(5)(5)) published in 1863 ;

(*f*) *trigonalis* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as fig. 25 on plate 5 and as figs. 3–4 on plate 50 of Davidson's monograph published in 1858 and 1863 (*Mon. brit. foss. Brach.* **2**) ;

(*g*) *pugnus* Martin, 1809 : the nominal species so named to be interpreted by reference to Martin's type-specimen (No. B.61451 in Brit. Mus. (Nat. Hist.)) illustrated by Muir-Wood in 1951 (*Ann. Mag. nat. Hist.* (12) **4,** pl. 4, figs. 3a-c) ;

(*h*) *striatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated in 1820 by Sowerby (J.) as upper figure on plate 270 (err. as 170) of *Min. Conch.* **3.** (Specimen preserved in the *Coll. Brit. Mus.* (*Nat. Hist.*) No. B. 61016) ;

(*i*) *semireticulatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen (No. B.3685 in Brit. Mus. (Nat. Hist.)) illustrated as figs. 2a-c on pl. 1 in 1928 by Muir-Wood (*Mem. geol. Surv. Gt. Brit.*, **3** (1)) ;

(*j*) *productus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen (No. 32453 in Geological Survey Museum) illustrated in 1928 as figs. 1a-d on pl. 1 by Muir-Wood (*Mem. geol. Surv. Gt. Brit.*, **3** (1)).

(3) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

(*a*) *Lonsdaleia* McCoy, 1849, *Ann. Mag. nat. Hist.* (2) **3** : 11 (type species, by original designation : *Erismatolithus Madreporites duplicatus* Martin, 1809, as proposed, under (1)(*a*) above, to be

validated under the plenary powers, the nominal species so named to be interpreted as specified in (2)(*a*) above) (Class Anthozoa) ;

(*b*) *Schizophoria* King, 1850, *Mon. Perm. Foss.* (Palaeont. Soc.) : 105, 106 (type species, by original designation : *Conchyliolithus Anomites resupinatus* Martin, 1809, as proposed under (1)(*c*) above, to be validated under the plenary powers, the nominal species so named to be interpreted as specified in (2)(*c*) above) (Class Brachiopoda) ;

(*c*) *Productus* Sowerby (J.), 1814, *Min. Conch.* **1** : 153 (type species, by subsequent selection by Thomas (I.), 1914 (*Mem. geol. Survey Gt. Brit.* (Palaeont.) **1**(4) : 258) : *Conchyliolithus Anomites productus* Martin, 1809, as proposed, under (1)(*e*) above, to be validated under the plenary powers) (Class Brachiopoda) ;

(*d*) *Dictyoclostus* Muir-Wood, 1930, *Ann. Mag. nat. Hist.* (10) **5** : 103 (type species, by original designation : *Conchyliolithus Anomites semireticulatus* Martin, 1809, as proposed, under (1)(*d*) above, to be validated under the plenary powers) (Class Brachiopoda) ;

(4) to amend the entry in relation to the name *Spirifer* Sowerby (J.), 1816, made in the *Official List of Generic Names in Zoology* under *Opinion* 100, as supplemented by the decision taken in 1948 that every generic name for which the plenary powers are used is to be placed on the foregoing *List* (1950, *Bull. zool. Nomencl.* **4** : 267), to read as follows :—

Spirifer Sowerby (J.), 1816, *Min Conch.* **2** : 41 (type species, by designation under the plenary powers (*Opinion* 100) : *Conchyliolithus Anomites striatus* Martin, 1809 (as proposed, under (1)(*j*) above, to be validated under the plenary powers)) (Class Brachiopoda) ;

(5) to place the under-mentioned trivial names on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology :*

(*a*) *conaxis* McCoy, 1849, *Ann. Mag. nat. Hist.* (2) **3** : 10, pl. 49 (as published in the binominal combination *Strombodes conaxis*) (trivial name of a nominal species, the holotype of which is the specimen, by which, as specified in (2)(*b*) above, the nominal species *Erismatolithus Madreporites floriformis* Martin, 1809, as proposed, under (1)(*b*) above, to be validated under the plenary powers, is to be interpreted) ;

(*b*) *semistriatus* Sowerby (J.), 1821, *Min. Clnch.* **4** : 15 (as published in the combination *Annomites* [sic] *semistriatus*) (a *faute de transcription* for " *Anomites semireticulatus* " Martin, 1809).

PROPOSED ADDITION TO THE "OFFICIAL LIST OF SPECIFIC TRIVIAL NAMES IN ZOOLOGY" OF THE TRIVIAL NAMES OF TWO SPECIES OF THE CLASS CEPHALOPODA AND OF TWELVE SPECIES OF THE CLASS BRACHIOPODA HITHERTO ATTRIBUTED TO MARTIN, 1809, AND MATTERS INCIDENTAL THERETO

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1. The present application for the addition of fourteen nomenclatorially available trivial names to the *Official List of Specific Names in Zoology* follows upon the decision taken by the International Commission on Zoological Nomenclature that names published in 1809 in William Martin's *Petrificata derbiensia* are not available in zoological nomenclature (1950, *Bull. zool. Nomencl.* **4**: 450-452) and is submitted in response to the desire expressed by the Thirteenth International Congress of Zoology that, when (as in the case of Martin's *Petrificata*) the International Commission rule that a given work is not available for nomenclatorial purposes (1950, *Bull. zool. Nomencl.* **4**: 310) the Commission should determine the future status of any new names published in such a work.

2. When giving its ruling against the availability of Martin's *Petrificata* for nomenclatorial purposes, the International Commission recognised that there might be cases where the dropping of a trivial name published by Martin in that work would lead to confusion and accordingly placed on record its willingness to give sympathetic consideration to applications which might be submitted for the validation of such names. In response to that invitation we have, in a separate application (Z.N.(S.)461), asked the Commission to use its plenary powers to validate ten of Martin's trivial names (two, being the trivial names of species of the Class Anthozoa, eight, of species of the Class Brachiopoda). The present application is concerned with trivial names which it is important should be preserved for use for the species to which they are currently applied, but for which it is not necessary for this purpose to invoke the use of the Commission's plenary powers, since, in each case, the name in question, on the first occasion on which it was used subsequent to Martin (1809), was used in a manner consistent with that in which it had been employed by Martin. In consequence, the strict application of the *Règles* in these cases will not involve any change in the names used for the species concerned; it will merely mean that in future these names will be attributed to some author, other than Martin, and will rank for purposes of priority from some date subsequent to 1809. The required stabilisation of these names, as from the authors and as of the dates attributable to them under a strict application of the *Règles* can

thus readily be secured by the Commission placing these names on the *Official List of Specific Trivial Names in Zoology*, and this is what is here recommended should now be done.

3. From the point of view of the International Commission, the present application represents no more than a start in the process of determining the manner in which in future trivial names hitherto attributed to Martin (1809) should in future be used ; the present application is submitted, however, because each of the names with which it is concerned has been the subject of special study in the light of the Commission's decision on the status of names in Martin's *Petrificata*, the names of the two species of the Class Cephalopoda by Stubblefield (1951, *Ann. Mag. nat. Hist.* (12) **4** : 119-124, pl. 7), the names of the twelve species of the Class Brachiopoda by Muir-Wood (1951, *ibid.* (12) **4** : 97-118, pls. 3-6). Full particulars in regard to each of these names are given in the papers referred to above, and, in consequence, it has not been thought necessary in the present application to do more than give those particulars which have an immediate bearing on the application now submitted. Each case is discussed briefly in the following paragraphs.

(1) The trivial name " sphaericus " as published by Martin in 1809 in the combination " Conchyliolithus Nautilites (sphaericus)."

4. The trivial name *sphaericus* was published by Martin in 1809 (*Petr. derb.* : sheet sign.D[2], pl. 7, figs. 3-5) in the combination *Conchyliolithus Nautilites* (*sphaericus*). This trivial name (in the combination *Ammonites sphaericus*) was next used by Sowerby (J.) in 1814 (*Min. Conch.* **1** : 116, pl. 53, figs. 2 (left & right), a reference being given to Martin's figures. The species hitherto known as *Goniatites sphaericus* (Martin, 1809) will thus in future be known as *Goniatites sphaericus* (Sowerby (J.), 1814) ; it is proposed, therefore, that the trivial name *sphaericus* Sowerby (J.), 1814, should now be added to the *Official List*. It would be convenient if a reference were there to be made to the fact that this nominal species should be interpreted by reference to the specimen numbered 43871 in the British Museum (Natural History), which is the specimen figured by Sowerby and which Foord & Crick (1897 : 159) and Bisat (1924 : 73) have suggested may well have been Martin's type specimen. This specimen has recently been refigured by Stubblefield (1951 : pl. 7, figs. 1a, 1b, 1c).

5. It must here be noted that the foregoing was one of the two nominal species originally included by de Haan in the genus *Goniatites* de Haan, 1825 (*Specimen phil. inaug. exhib. Mon. Ammonit. Goniatit.* : 159) and was selected as the type species of that genus by Miller (S.A.) in 1889 (*N. Amer. Geol. Pal.* : 438), by whom, however, the species was referred to as *Goniatites sphericus*, its trivial name being misspelt, as shown). It is desirable that the present opportunity should be taken to place the generic name *Goniatites* de Haan, 1825 (with the above species as type species) on the *Official List of Generic Names in Zoology*.

(2) The trivial name " listeri " as published by Martin in 1809 in the combination " Conchyliolithus Nautilites Ammonites (listeri)."

6. The trivial name *listeri* was published by Martin in 1809 (*Petr. derb.* : sheet sign.P[4], pl. 35, fig. 3) in the combination *Conchyliolithus Nautilites Ammonites* (*listeri*). This trivial name was next used (in the combination *Ammonites listeri* by Sowerby (J.) in 1812 (*Brit. Min.* **5** : 97, pl. 455) ; the same species was described and more adequately figured, again under the name *Ammonites listeri*, by Sowerby's son (J. de C. Sowerby) in 1825 (*Min. Conch.* **5** : 163, pl. 501 figs. 1, left and right hand). Both the older and the younger Sowerby referred in their descriptions of this species to *C. Naut. Amm. listeri* Martin. The species figured by the two Sowerbys which is that hitherto known as *Gastrioceras listeri* (Martin, 1809), will thus in future be known as *Gastrioceras listeri* (Sowerby, 1812) ; it is proposed, therefore, that the trivial name *listeri* Sowerby (J.) should now be added to the *Official List*. The original specimen figured by Sowerby (J.) in 1812 cannot now be found, but the specimens figured respectively as the right hand and left hand figures 1 on J. de C. Sowerby's pl. 501 are both now in the British Museum (Natural History). Stubblefield has selected (1951 : 123) the specimen numbered 43909*b* (which is the original of J. de C. Sowerby's left hand figure) as the specimen by which this nominal species should be interpreted, and has refigured this specimen (1951 : pl. 7, figs. 2a, 2b, 2c). It is suggested that a reference to this action should be added against the trivial name *listeri* Sowerby (J.), 1812, when that name is placed on the *Official List*.

7. The foregoing nominal species was the first of those cited by Hyatt when in 1884 (*Proc. Boston. Soc. nat. Hist.* **22** : 327) he published the generic name *Gastrioceras*, and was selected as the type species of that genus in 1884 (*Cat. foss. Cephal. Brit. Mus.* **3** : 327) by Foord & Crick, who referred to this species under the name *Goniatites listeri* Phillips, a method of citation which fulfills the requirements of Rule (g) in Article 30, since Phillips (1836, *Ill. Geol. Yorkshire* **2** : 235) expressly cited *Ammonites listeri* Sowerby in the synonymy which he then gave for this species. It is desirable that the present opportunity should be taken to place the generic name *Gastrioceras* Hyatt, 1884 (with the above species as type species) on the *Official List of Generic Names in Zoology*.

(3) The trivial name " giganteus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (giganteus)."

8. The trivial name *giganteus* was published by Martin in 1809 (*Petr. derb.* : sheet sign.G[2], pl. 15, fig. 1) in the combination *Conchyliolithus Anomites* (*giganteus*), and in 1793 (*Fig. Descr. Petrifactions Derbyshire* : sheet sign. H[1], pl. fig. 1) as C. *Anomia* (*giganteus*). The next occasion on which this trivial name was applied to Martin's species was in 1822 (*Min. Conch.* **4** : 19, pl. 320) when it was figured as *Productus giganteus* by Sowerby (J.), to whom Martin had presented his specimen. This specimen is now preserved in the Sowerby collection at the British Museum (Natural History) under the number BB. 936. This species which was formerly known as *Gigantella gigantea* (Martin,

1809) and more recently as *Gigantoproductus giganteus* (Martin, 1809) will in future be known as *Gigantoproductus giganteus* (Sowerby (J.), 1822) ; it is now proposed that the trivial name *giganteus* Sowerby (J.), 1822, should be added to the *Official List*.

9. The foregoing species is the type species, by subsequent selection by Muir-Wood (1930, *Ann. Mag. nat. Hist.* (10) **5** : 105, 106) of *Gigantella* Sarycheva, 1928 (*Mem. geol. Sci. Res. Inst. Moscow* 1928 (1) : 13) ; that name is, however, invalid, being a junior homonym of *Gigantella* Ekman, 1905 (*Wiss. Ergeb. schwed. Südp.-Exp.* **5** (No. 4) : 20) and has been replaced by *Gigantoproductus* Prentice, 1950 (*Geol. Mag.* **87** (6) : 436). It is proposed that this generic name (with the above species as type species) should now be placed on the *Official List*, the invalid homonym *Gigantella* Sarycheva, 1928, being at the same time placed on the *Official Index*.

(4) The trivial name " crassus " as published by Martin in 1793 in the combination " Conchyliolithus Anomia (crassus)."

10. Martin published the name *Conchyliolithus Anomia* (*crassus*) in 1793 (*Fig. Descr. Petrifactions Derbyshire* : sheet sign. H[2], pl. 16, figs. 2, 3) and 1809 (*Petr. derb.* : sheet sign. G[3], pl. 16, fig. 2) he published a figure of another specimen of the same species under the name *Conchyliolithus Anomites* (*crassus*). The next author to refer to Martin's species was Fleming, who in 1828 (*Hist. brit. Anim.* : 379) briefly described it under the name *Productus crassus*. Muir-Wood has recently (1951 : 101, pl. 5, figs. 1a, 1b) selected a specimen from Derbyshire (probably from the Upper Dibunophyllum zone) in the White Watson Collection, now in the British Museum (Natural History) (specimen number B. 40431) as the neotype of this species, as Martin's and Fleming's specimens have not been preserved. This specimen was figured by Muir-Wood (1951 : pl. 7, figs. 1a, 1b). It is proposed that the trivial name *crassus* Fleming, 1828, which now becomes the oldest available trivial name for this species should be placed on the *Official List*.

(5) The trivial name " aculeatus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (aculeatus)."

11. The trivial name *aculeatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. R[4], pl. 37, figs. 9, 10) in the combination *Conchyliolithus Anomites* (*aculeatus*). This species was next described by Sowerby (J.) in 1814 (*Min. Conch.* **1** : 156, pl. 68, fig. 4) under the name *Productus aculeatus*. Sowerby's specimen is now in the British Museum (Natural History) (specimen No. B. 60992) ; it is virtually certain that this specimen is also the original of Martin's figure. This specimen has recently been selected as the lectotype of this species by Muir-Wood (1951 : 102), by whom it was at the same time refigured (1951 : pl. 3, fig. 3a, b, c). It is proposed that the trivial name *aculeatus* Sowerby (J.), 1814 (as published in the binominal combination *Productus aculeatus*) should now be placed on the *Official List* and that in the entry to be made in that *List* reference should be made to the foregoing lectotype selection.

(6) The trivial name " punctatus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (punctatus)."

12. The trivial name *punctatus* was published by Martin in 1809 (*Petr. derb.*: sheet sign. R[3], pl. 37, figs. 6-8) in the combination *Conchyliolithus Anomites* (*punctatus*). Martin's species was redescribed and figured by Sowerby (J.) in 1822 (*Min. Conch.* **4** : 22, pl. 323) as *Productus punctatus*. This was the first occasion on which, subsequent to Martin 1809, the trivial name *punctatus* was applied to this species and it is accordingly from this usage that this name now takes priority. Four of the specimens figured by Sowerby on his plate 323 are preserved in the Sowerby Collection in the British Museum (Natural History), and of these, the specimen figured by Sowerby as the lower right hand figure (specimen No. B. 60966) has been selected by Muir-Wood (1951 : 103) as the lectotype of Sowerby's species and has been refigured (1951 : pl. 4, figs. 2a, b). It is proposed that the trivial name *punctatus* Sowerby (J.), 1822 (as published in the binominal combination *Productus punctatus*) should now be placed on the *Official List*, reference being made in the entry in question to the lectotype selection referred to above.

13. The species *Productus punctatus* Sowerby, 1822 (under its earlier, but, as is now known, invalid name *Anomites punctatus* Martin, 1809 (i.e. *Conchyliolithus Anomites punctatus*) was selected as the type species of *Echinoconchus* Weller (J. S.), 1914 (*Mon. State geol. Surv. Illinois* **1** : 138) by Chao in 1927 (*Palaeont. sinic.* **5**(2) : 63). The name *Echionoconchus* Weller is an available name and is accepted as the oldest such name for the genus in question. It is accordingly proposed that this generic name with the above species as type species should now be placed on the *Official List*.

(7) The trivial name " scabriculus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (scabriculus)."

14. The trivial name *scabriculus* was published by Martin in 1809 (*Petr. derb.*: sheet sign. R [2], pl. 36, fig. 5) in the combination *Conchyliolithus Anomites* (*scabriculus*). This species was next described and figured by Sowerby (J.), as *Productus scabriculus*, in 1814 (*Min. Conch.* **1** : 157, pl. 69, fig. 1) and this is the oldest available use of this name subsequent to Martin, 1809. The specimen figured by Sowerby, which is in the Sowerby Collection in the British Museum (Natural History) (specimen No. B. 60954) has been selected by Muir-Wood as the lectotype of Sowerby's species and has been refigured (1951 : pl. 5, figs. 5a, b, c). It is proposed that the trivial name *scabriculus* Sowerby (J.), 1814 (as published in the binominal combination *Productus scabriculus*) should now be placed on the *Official List*, a note being made in the entry thereon of the lectotype selection referred to above.

15. The above species (under the invalid name given to it by Martin in 1809) is the type species, by original designation, of the genus *Buxtonia* Thomas (I.), 1914 (*Mem. geol. Surv. Unit. Kingd.*, Pal. **1**(4) : 259) and, as that name is both an available name and also the oldest such name for the genus in question, it is proposed that it should now be placed on the *Official List* with the foregoing species as type species.

(8) The trivial name "acuminatus" as published by Martin in 1809 in the combination "Conchyliolithus Anomites (acuminatus)."

16. The trivial name *acuminatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. O [4], pl. 32, figs. 7, 8 ; pl. 33, figs. 5, 6). Martin's species was next figured and described as *Terebratula acuminata* by Sowerby (J.) in 1822 (*Min. Conch.* **4** : 23, pl. 324, fig. 1 (two upper figures and middle figure). The specimen figured by Sowerby as the upper figure is missing but that figured as the middle figure is preserved in the Sowerby Collection in the British Museum (Natural History) (specimen No. B. 61235) and has been selected (Muir-Wood, 1951 : 105) as the lectotype of Sowerby's species and refigured (1951 : pl. 3, figs. 1a, b, c). Sowerby's usage of the name *acuminatus* for this species is thus that as from which that name now ranks for the purposes of the Law of Priority. It is proposed that the trivial name *acuminata* Sowerby (J.), 1822 (as published in the binominal combination *Terebratula acuminata*) should now be placed on the *Official List* and that in the entry so made reference should be included to the lectotype selection noted above.

17. The above species (under the name *Anomites acuminatus*) is the type species, by original designation, of the genus *Pugnax* Hall & Clarke, 1894 (*Palaeont. New York* **8** (2) : 202). The name *Pugnax* is an available name and is accepted by specialists as the oldest such name for the genus in question. It is accordingly proposed that this generic name (with *Terebratula acuminata* Sowerby (J.), 1822, as type species) should now be placed on the *Official List*.

(9) The trivial name "lineatus" as published by Martin in 1809 in the combination "Conchyliolithus Anomites (lineatus)."

18. The trivial name *lineatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Q [4], pl. 36, fig. 3). Martin's species was next described and figured by Sowerby (J.) in 1822 (*Min. Conch.* **4** : 39, pl. 335 (referred to as 334 in text), figs. 1, 2) as *Terebratula ? lineata*. The name *lineata*, as from Sowerby, 1822, is the oldest available name for this species ; the specimen figured by Sowerby as figure 1 on his plate 335 is preserved in the Sowerby Collection in the British Museum (Natural History (specimen No. B. 60997) and has been selected by Muir-Wood (1951 : 106) as the lectotype of this species and has been refigured (1951 : pl. 5, figs. 4a, b, c). It is proposed that the trivial name *lineata* Sowerby (J.), 1822 (as published in the binominal combination *Terebratula ? lineata*) should now be placed on the *Official List*, a note being made in that list of the foregoing lectotype selection. It is proposed that at the same time there should be added to the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* the trivial name *martini* Fleming, 1828 (*Hist. brit. Anim.* : 376) (as published in the binominal combination *Spirifer martini*), which is a junior objective synonym of *lineata* Sowerby, 1822, the name *Spirifer martini* Fleming being no more than an unrequired substitute for the earlier name *Terebratula ? lineata* Sowerby (J.).

(10) The trivial name " triangularis " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (triangularis)."

19. The trivial name *triangularis* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Q[3], pl. 36, fig. 2) in the combination *Conchyliolithus Anomites* (*triangularis*). The specimen so named and figured by Martin is one of two specimens described and figured by Sowerby (J. de C.) in 1827 (*Min. Conch.* **6** : 120, pl. 562, fig. 5 (Martin's specimen), fig. 6 (another syntype)) under the name *Spirifer triangularis*. As from Sowerby, 1827, this is an available name and the oldest such name for this species. From the two specimens figured by Sowerby, both of which are preserved in the Sowerby Collection in the British Museum (Natural History), Muir-Wood (1951 : 106) selected that figured by Sowerby as figure 5 on his plate 562 (specimen No. B. 61049, (Martin's specimen) to be the lectotype of Sowerby's species. This specimen has been refigured by Muir-Wood (1951 : pl. 5, figs. 3 a-d). It is proposed that the trivial name *triangularis* Sowerby (J. de C.), 1827 (as published in the binominal combination *Spirifer triangularis*) should be placed on the *Official List*, a note being added to the entry so made drawing attention to the lectotype selection referred to above.

(11) The trivial name " acutus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (acutus)."

20. The trivial name *acutus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. 2A[1], pl. 49, figs. 15, 16) in the combination *Conchyliolithus Anomites* (*acutus*). This species was not dealt with by either of the Sowerbys, the species which J. Sowerby figured and described as *Terebratula acuta* (1816, *Min. Conch.* **2** : pl. 150, figs. 1, 2) being a Lias Rhynchonellid, while that referred to under the same name by J. de C. Sowerby in 1825 (*Min. Conch.* **5** : pl. 502, fig. 4) is an Inferior Oolite Rhynchonellid. The next author to be considered is Fleming, 1828 (*Hist. brit. Anim.* : 375) who applied the name *Spirifer acutus* and gave a reference both to Martin's figures of *acutus* and also to the figures given for quite a different species, *Spirifer minimus* Sowerby (J.), 1821 (*Min. Conch.* **4** : pl. 377, fig. 1). McCoy (1844 : 132) also united these two species, applying to each the name *Spirifer minimus* Sowerby. The first author to have described and figured Martin's *acutus*, without at the same time confusing that species with some other species, was Davidson who in 1863 (*Mon. brit. foss. Brach.* **2** (5) : 224, pl. 52, figs. 16, 17) figured and described this species under the name *Spirifera acuta*. Of Davidson's figures, figure 16 was a copy of Martin's. The specimen figured by Davidson as his figures 17, 17a is in the Davidson Collection in the British Museum (Natural History) (specimen No. B. 7391) has been selected by Muir-Wood (1951 : 107) as the specimen by which in future this species should be interpreted and has been refigured (1951 : pl. 5, figs. 2a-c). This selection was made on the assumption that Davidson (1863) was the first author, after Martin (1809), by whom the name *acutus* was effectively applied to Martin's species. More recently, the position in relation to this matter of the name *Spirifer acutus* Fleming, 1828, has been considered further. This is clearly an available name, for it is not a homonym of any

previously published name and it was certainly published with an indication. At the present time it is, however, indeterminate from the taxonomic point of view, for until a selection has been made under Article 31, it is not possible to determine whether this name, published by Fleming as the name of a composite species, is applicable to Martin's *Conchyliolithus Anomites acutus* (to the figure of which Fleming gave a reference) or to *Spirifer minimus* Sowerby (J.), 1822 (to which also Fleming gave a reference). In order to clear up this preliminary point Muir-Wood hereby selects, under the procedure prescribed in Article 31 (*see* 1950, *Bull. zool. Nomencl.* **4** : 74–76), the reference given by Fleming to *Spirifer minimus* Sowerby, 1821, to be the reference by which the hitherto composite species *Spirifer acutus* Fleming, 1828, is in future to be determined. This action makes the nominal species *Spirifer acutus* Fleming, 1828, a junior objective synonym of *Spirifer minimus* Sowerby, 1821 (the two nominal species being based upon the same type specimen). The removal in this way of Fleming's *Spirifer acutus* from consideration as the first name given, after 1809, to Martin's *acutus* makes Davidson's *Spirifera acuta* of 1863 the oldest name for that species, for it is an available name, not being a homonym of *Spirifer acutus* Fleming, since under Article 34, as defined by the Paris Congress (*see* 1950, *Bull. zool. Nomencl.* **4** : 161–162) the names *Spirifer* and *Spirifera* are not to be regarded as homonyms of one another. Accordingly the trivial name *acuta* Davidson now becomes the oldest available name for Martin's species, and it is proposed therefore that this name should now be placed on the *Official List*. It is further proposed that a reference should be inserted in the entry so to be made, referring to the lectotype selected from the Davidson Collection to which reference has already been made.

(12) The trivial name "glaber" as published by Martin in 1809 in the combination "Conchyliolithus Anomites (glaber)."

21. The trivial name *glaber* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Z[2], pl. 48, figs. 9, 10) in the combination *Conchyliolithus Anomites* (*glaber*). The next author to deal with this species was Sowerby (J.), who in 1820 (*Min. Conch.* **3** : 123, pl. 269 (169 on plate) described and figured it as *Spirifer glaber*. The upper of the two specimens figured by Sowerby on the foregoing plate, which is in the Sowerby Collection in the British Museum (Natural History) (specimen No. BB. 102), has been refigured by Muir-Wood (1951 : pl. 3, figs. 2a-c), by whom it has been selected to be the lectotype of this species. It is proposed that the trivial name *glaber* Sowerby (J.), 1820 (as published in the binominal combination *Spirifer glaber*) should now be placed on the *Official List*, a note being at the same time made thereon referring to the above lectotype selection.

22. The species called *Conchyliolithus Anomites* (*glaber*) by Martin in 1809 (the earliest binominal name for which is, as we have seen, *Spirifer glaber* Sowerby (J.), 1820) is commonly treated as being the type species of the genus *Martinia* McCoy, 1844, but in fact this is not the type species of that genus under the *Règles*. Great confusion would arise if the *Règles* were allowed to operate in the normal way in this case and an application Reference Z.N.(S)535)

has been made to the International Commission on Zoological Nomenclature to use its plenary powers to give valid force to the position of *Spirifer glaber* Sowerby (J.) as the type species of this genus.

(13) The trivial name " cuspidatus " as published by Martin in 1809 in the binominal combination " Conchyliolithus Anomites (cuspidatus)."

23. The trivial name *cuspidatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Y[3], pl. 46, figs. 3, 4 ; pl. 47, fig. 5 (all three figures representing the same specimen) in the combination *Conchyliolithus Anomites* (*cuspidatus*). Martin's species was next described and figured by Sowerby (J.) in 1816 (*Min. Conch.* **2** : 42, pl. 120, figs. 1-3) in the binominal combination *Spirifer cuspidatus*. Martin's original specimen from Castleton, Derbyshire, is one of the two specimens figured by Sowerby on his plate 120, where it appears as figures 1 and 3. This specimen is in the Sowerby Collection in the British Museum (Natural History) (specimen No. B. 61450) ; it has been selected by Muir-Wood (1951 : 112) as the lectotype of *Spirifer cuspidatus* Sowerby (J.), 1816 and has been re-figured (1951 : pl. 4, figs. 1 a-d). It is proposed that the trivial name *cuspidatus* Sowerby (J.), 1816 (as published in the binominal combination *Spirifer cuspidatus*) should now be placed on the *Official List*, a note being made in that list of the foregoing lectotype selection.

(14) The trivial name " sacculus " as published by Martin in 1809 in the combination " Conchyliolithus Anomites (sacculus)."

24. The trivial name *sacculus* was published by Martin in 1809 (*Petr. derb.* : sheet sign.Y [3], pl. 46, figs. 1, 2) in the combination *Conchyliolithus Anomites* (*sacculus*). Martin's species was next described and figured by Sowerby (J. de C.) in 1824 (*Min. Conch.* **5** : 65, pl. 446, fig. 1 (three top figs.)) in the binominal combination *Terebratula sacculus*. The originals of Sowerby's first and second figures on plate 446 are preserved in the Sowerby Collection in the British Museum (Natural History) and the second of these specimens (i.e. that represented as the top middle figure on Sowerby's plate 446 (specimen No. B. 61653) has been selected by Muir-Wood (1951 : 114) as the lectotype of *Terebratula sacculus* Sowerby (J. de C.), 1824 and has been figured (1951 : pl. 5, figs. 1 a-c). It is proposed that the trivial name *sacculus* Sowerby (J. de C.), 1824 (as published in the binominal combination *Terebratula sacculus*) should now be placed on the *Official List*, a reference being made in the *List* at the same time to the foregoing lectotype selection.

(15) The trivial names used by Martin in 1809 for the two other species of Brachiopoda then named by that author.

25. In addition to the twelve species of Brachiopoda discussed as items (3) to (14) above, Martin in 1809 described two other species, which he called respectively *Conchyliolithus Anomites* (*rotundatus*) (*Petr. derb.* : sheet sign. Z[3], pl. 48, figs. 11, 12) and *Conchyliolithus Anomites* (*attenuatus*) (*Petr. derb.* : (Addl. Remarks) 14). As regards the first of these species, the position is that Martin's original specimen is lost, that his figure (which appears to represent

an immature shell) is not sufficient to permit of the identification of the species figured, and that the next occasion on which the trivial name *rotundatus* was used (*Spirifer rotundatus* Sowerby (J. de C.), 1824, *Min. Conch.* **5** : 89, pl. 461, fig. 1 (two views)) it was applied to a species which is certainly not the same as that to which that trivial name had been given by Martin. In view of the doubt as to the identity of Martin's species (Muir-Wood, 1951 : 108), it is not considered desirable to refer the trivial name *rotundatus*, as used by Martin, to any species described by a subsequent author. It is accordingly proposed that in order to dispose of this problem, the trivial name *rotundatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*rotundatus*)), which is an invalid name under the general decision taken by the International Commission on Zoological Nonemclature regarding the status of names in Martin's *Petrificata* derbiensia (see paragraph 1 above), should now be placed on the *Official Index of Rejected and Invalid Names*. The second of the two nominal species referred to above is not figured by Martin and is unidentifiable. It is accordingly proposed that the invalid trivial name *attenuatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*attenuatus*)) should be disposed of by being placed on the *Official Index*.

Recommendations

26. Having now examined the status, under the *Règles*, of the trivial names given by Martin in1809 to the two species of Goniatites and the fourteen species of Brachiopoda there described and, in most cases, figured, we may summarise as follows the recommendations which we submit to the International Commission on Zoological Nomenclature, namely that it should —

(1) place the under-mentioned trivial names on the *Official List of Specific Names in Zoology* :—

(A) Class Cephalapoda

(*a*) *listeri* Sowerby (J.), 1812 (as published in the binominal combination *Ammonites listeri*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 7, figs. 2a-c) by Stubblefield, 1951 ;

(*b*) *sphaericus* Sowerby (J.), 1814 (as published in the binominal combination *Ammonites sphaericus* (holotype figured, pl. 7, figs. 1a-c) by Stubblefield, 1951 ;

(B) Class Brachiopoda

(*c*) *aculeatus* Sowerby (J.), 1814 (as published in the binominal combination *Productus aculeatus*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 3a-c) by Muir-Wood, 1951 ;

(*d*) *acuminata* Sowerby (J.), 1822 (as published in the binominal combination *Terebratula acuminata*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 1a-c) by Muir-Wood, 1951 ;

(*e*) *acuta* Davidson, 1863 (as published in the binominal combination *Spirifera acuta*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 2a-e) by Muir-Wood, 1951 ;

(*f*) *crassus* Fleming, 1828 (as published in the binominal combination *Productus crassus*, the species so named to be interpreted by reference to fig. 2 on Martin's (1809) plate 16, cited by Fleming ;

(*g*) *cuspidatus* Sowerby (J.), 1816 (as published in the binominal combination *Spirifer cuspidatus*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 4, figs. 1a-d) by Muir-Wood, 1951 ;

(*h*) *giganteus* Sowerby (J.), 1822 (as published in the binominal combination *Productus giganteus*), the species so named to be interpreted by reference to the lectotype selected by Muir-Wood, 1951 ;

(*i*) *glaber* Sowerby (J.), 1820 (as published in the binominal combination *Spirifer glaber*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 2a-c) by Muir-Wood, 1951 ;

(*j*) *lineata* Sowerby (J.), 1822 (as published in the binominal combination *Terebratula ? lineata*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 4a-c) by Muir-Wood, 1951 ;

(*k*) *punctatus* Sowerby (J.), 1822 (as published in the binominal combination *Productus punctatus*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 4, figs. 2a, b) by Muir-Wood, 1951 ;

(*l*) *sacculus* Sowerby (J. de C.), 1824 (as published in the binominal combination *Terebratula sacculus*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 1a-c) by Muir-Wood, 1951 ;

(*m*) *scabriculus* Sowerby (J.), 1814 (as published in the binominal combination *Productus scabriculus*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 5a-c) by Muir-Wood, 1951 ;

(*n*) *triangularis* Sowerby (J. de C.), 1827 (as published in the binominal combination *Spirifer triangularis*), the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 3a-d) by Muir-Wood, 1951 ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

(A) Class Cephalopoda

(*a*) *Gastrioceras* Hyatt, 1884 (type species, by selection by Foord & Crick (1897) : *Ammonites listeri* Sowerby (J.), 1812, as defined in (1) (*a*) above) ;

(*b*) *Goniatites* de Haan, 1825 (type species, by selection by Miller (1889) : *Ammonites sphaericus* Sowerby (J.), 1814, as defined in (1) (*b*) above) ;

(B) Class Brachiopoda

(*c*) *Buxtonia* Thomas (I.), 1914 (type species, by original designation : *Productus scabriculus* Sowerby (J.), 1814, as defined in (1) (*m*) above) ;

(*d*) *Echinoconchus* Weller (J. S.), 1914 (type species, by subsequent selection by Chao (1927) : *Productus punctatus* Sowerby (J.), 1822, as defined in (1) (*k*) above) ;

(*e*) *Gigantoproductus* Prentice, 1950 (nom. nov. pro *Gigantella* Sarycheva, 1928, a junior homonym of *Gigantella* Ekman, 1905) (type species, by subsequent selection by Muir-Wood (1930 : *Productus giganteus* Sowerby (J.), 1822, as defined in (1) (*h*) above) ;

(*f*) *Pugnax* Hall & Clarke, 1894 (type species, by original designation : *Terebratula acuminata* Sowerby (J.), 1822, as defined (1) (d) above) ;

(3) to place the under-mentioned trivial names on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* :—

(*a*) *aculeatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*aculeatus*)) ;

(*b*) *acuminatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*acuminatus*)) ;

(*c*) *acutus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*acutus*)) ;

(*d*) *attenuatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*attenuatus*)) ;

(*e*) *crassus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*crassus*)) ;

(*f*) *cuspidatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*cuspidatus*)) ;

(*g*) *giganteus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*giganteus*)) ;

(*h*) *glaber* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*glaber*)) ;

(*i*) *lineatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*lineatus*)) ;

(*j*) *listeri* Martin, 1809 (as published in the combination *Conchyliolithus Nautilites Ammonites* (*listeri*)) ;

(*k*) *punctatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*punctatus*)) ;

(*l*) *rotundatus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*rotundatus*)) ;

(*m*) *sacculus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*sacculus*)) ;

(*n*) *scabriculus* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*scabriculus*)) ;

(*o*) *sphaericus* Martin, 1809 (as published in the combination *Conchyliolithus Nautilites* (*sphaericus*)) ;

(*p*) *triangularis* Martin, 1809 (as published in the combination *Conchyliolithus Anomites* (*triangularis*)) ;

(4) to place the generic name *Gigantella* Sarycheva, 1928 (a junior homonym of *Gigantella* Ekman, 1905) on the *Official Index of Rejected and Invalid Generic Names in Zoology.*

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE SPECIES FOR THE GENUS " MARTINIA " McCOY, 1844 (CLASS BRACHIOPODA) IN HARMONY WITH CURRENT NOMENCLATORIAL USAGE

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(Commission's reference Z.N.(S.)535)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to designate, as the type species of *Martinia* McCoy, 1844 (*Syn. carb. Foss. Ireland* : 128, 139) (Class Brachiopoda), a species in harmony with current nomenclatorial usage and thus to prevent the confusion which would arise if the normal provisions of the *Règles* were to be strictly applied. It is particularly hoped that it may be possible for the International Commission to reach an early decision on the present application, since it is important that this matter should be settled prior to the publication of the forthcoming *Treatise on Invertebrate Paleontology.* This case has recently been discussed in a paper entitled " The Brachiopoda of Martin's Petrificata Derbiensia " (Muir-Wood, 1951, *Ann. Mag. nat. Hist.* (12) **4** : 109–112, pl. 3, figs. 2 a-c ; pl. 5, figs. 6 a-c), from which the particulars given in the following paragraphs have been extracted.

2. McCoy, when first publishing the generic name *Martinia*, placed in the genus so named eleven species, including (*a*) *Spirifera decora* Phillips, 1836 (*Geol. Yorkshire* **2** : 219, pl. 10, fig. 9) (the first species cited by McCoy) and (*b*) *Conchyliolithus Anomites* (*glaber*) *Martin*, 1809 (a species, the oldest available name for which is *Spirifer glaber* Sowerby (J.), 1820, in view of the decision by the International Commission on Zoological Nomenclature that Martin's *Petrificata derbiensia is not available for the purposes of zoological nomenclature* (*see* also the application submitted to the Commission as Case Z.N.(S.)534). McCoy did not designate a type species for the genus *Martinia*, although he indicated that this genus was typified by Martin's " short-hinged smooth Spirifer ". In fact, however, the figures (figs. 18, 22) given by McCoy for Martin's *glaber* did not represent that species, but under the decision by the International Congress of Zoology at Paris in 1948 that species is nevertheless to be regarded as one of the originally included species of this genus, in view of the provision that the author of a new generic name is to be deemed, for the purpose of Article 30, to have correctly identified the nominal species assigned by him to the genus so named (see 1950, *Bull. zool. Nomencl.* **4** : 158–159).

3. King in 1846 (*Ann. Mag. nat. Hist.* **18** : 29, 32) listed eight species as belonging to the genus *Martinia*, placing *glabra* Martin at the head of the list, but he did not select a type species for this genus. In a list of genera published in 1850 (*Mon. Perm. Foss. Engl.* (Palaeont. Soc.) : 81) King cited *glabra* Martin in such a way as to imply that it was a typical species of *Martinia*, but later in the same publication (: 134) he definitely stated that *Spirifer decora* was the type species of this genus. Since the latter was one of the originally included species and no prior type-selection had been made, this action is valid under the *Règles* and accordingly *Spirifera decora* Phillips, 1836, is the type species of *Martinia* McCoy, 1844.

4. Turning to the treatment of this subject by later authors, we find :—

(1) that in 1877 (: 46) Dall cited *Spirifer decorus* Phillips and *Martinia glabra* (i.e. Martin's *glaber* as interpreted by McCoy) as examples of the genus *Martinia* McCoy, but he did not state what species he regarded as the type species ;

(2) that in 1883 (: 528) Waagen also cited the above species as examples of *Martinia* but did not state what he regarded as the type species ;

(3) that in 1894 (: 32) Hall and Clarke listed Martin's *glaber* with three American species as belonging to their sub-division 1 or " Aseptati " (=*Martinia* McCoy) in their Division VI of *Spirifer* " Glabrati ", but did not state what the type species was ;

(4) that in 1908 (: 30) Buckman (S. S.) definitely stated that *Anomites glaber* Martin was the type species of *Martinia* McCoy ;

(5) that in 1927 (: 110) George (T. N.) also stated that Martin's *glaber* was the type species of *Martinia* McCoy ;

(6) that in 1929 (: 81) Schuchert and LeVene tried to get round the difficulty presented by the fact that two different species had been selected as the type species of *Martinia* McCoy by citing the type species of that genus as " *Spirifer decorus* Phillips=*Anomites glaber* Martin, 1809."

5. The holotype of *Spirifera decora* Phillips, 1836, is preserved in the Gilbertson Collection in the British Museum (Natural History) (specimen No. B. 264), and has recently been refigured (Muir-Wood, 1951 : pl. 5, fig. 6 a, b, c). This specimen has been carefully compared with the lectotype of *Spirifer glaber* Sowerby, 1820 (the name of the nominal species which, as explained in paragraph 2 above, replaces the invalid name *Conchyliolithus Anomites* (*glaber*) Martin, 1809), which has also been refigured (1951 : pl. 3, fig. 2a, b, c). This comparison establishes beyond question that these two specimens belong to different species and therefore that the nominal species *Spirifera decora* Phillips (the type species of *Martinia* McCoy) is not identical with *Spirifer glaber* Sowerby, which (under its earlier invalid name *Anomites glaber* Martin) is today accepted as the type species of *Martinia* McCoy.

6. The generic name *Martinia* is widely used in the geological literature of Europe in conjunction with the trivial name *glabra*, usually to indicate smooth *Spirifers* with no internal plates. Confusion would be caused if *Spirifera decora* Phillips were to be accepted as the type species of *Martinia* McCoy, since the two species *S. decora* and *S. glabra* are almost certainly not congeneric. It is to avoid that confusion that the Commission is asked to use its plenary powers to validate current nomenclatorial practice. The specific recommendations now submitted to the International Commission on Zoological Nomenclature are that it should :—

(1) use its plenary powers to set aside all type selections for the genus *Martinia* McCoy, 1844, made prior to the decision now proposed to be taken, and to designate *Spirifer glaber* Sowerby, 1820 (as interpreted by the lectotype selected and figured by Muir-Wood (1951 : pl. 3, fig. 2a, b, c) to be the type species of the foregoing genus ;

(2) place the generic name *Martinia* McCoy, 1844 (gender of generic name : feminine) (type species, by designation under the plenary powers proposed in (1) above : *Spirifer glaber* Sowerby, 1820, to be interpreted as specified in (1) above) on the *Official List of Generic Names in Zoology* ;

(3) place the trivial name *decora* Phillips, 1836 (as published in the binominal combination *Spirifera decora*) on the *Official List of Specific Trivial Names in Zoology*, a reference being made therein to the recently republished figures of the holotype of this species (Muir-Wood, 1951 : pl. 5, fig. 6a, b, c).

7. I should certainly have asked also that the trivial name *glaber* Sowerby, 1820 (as published in the binominal combination *Spirifer glaber*) should be placed on the *Official List*, if it had not been that I have already asked that this should be done in the application (Z.N.(S.)534) which (with Dr. C. J. Stubblefield) I have submitted to the International Commission on the general question of the regularisation of the trivial names applied to species of Brachiopoda by Martin in 1809.

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Important Notice

Part 12 of Volume 2, containing the Title Page, Table of Contents and Indexes, is in the press and will be published shortly.

Inquiries

All inquiries regarding publications should be addressed to the International Trust for Zoological Nomenclature, and all inquiries regarding the scientific work of the International Commission on Zoological Nomenclature to the Secretary to the Commission at the following addresses :—

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Printed in Great Britain by METCHIM AND SON, LTD.,
Westminster, London